

REMARKS

Reconsideration of the application is requested.

Claims 7-13 remain in the application. Claims 7-13 are subject to examination.

Under the heading "Claim Rejections – 35 USC § 103" on page 2 of the above-identified Office Action, claims 7-13 have been rejected as being obvious over U.S. Patent No. 6,031,705 to Gscheidle in view of U.S. Patent No. 6,172,383 B1 to Williams under 35 U.S.C. § 103. Applicants respectfully traverse.

Applicants first point out that one of ordinary skill in the art would not want to bypass the resistor R4 in the switching device 2 of the Gscheidle circuit by connecting a diode across the resistor R4 as the Examiner has alleged. Note that an applied overvoltage will turn on the transistor T1 of the surge detection device 1 that is taught by Gscheidle. The action of turning on the transistor T1 of the surge detection device 1 is what causes the MOS transistor T2 of the switching device 2 to be turned off. If the resistor R4 were bypassed by a diode in this state, there would be no resistor functioning to limit the amount of current flowing out of the gate of the MOS transistor T2 and through the transistor T1 as the MOS transistor T2 is turning off. Such a situation would be undesirable and could result in damage to the transistor T1. One of ordinary skill in the art would not be motivated to design such a circuit. One of ordinary skill in the art considering the teaching of Gscheidle and Williams would not have obtained a suggestion leading to the invention as defined by claim 7.

Applicants also assert an additional reason why one of ordinary skill in the art could not have obtained a suggestion to make the modification asserted by the Examiner. The large value of the resistance R_L , which is bypassed by the diode D1 in the Williams circuit, is large because of the need to limit the current through the opposed diode pairs in the branch of the voltage clamp that has the lower breakdown voltage (see Fig. 4B and column 5, lines 42-44 and column 6, lines 49-55 of Williams). Williams uses a voltage clamp 404, 820 to clamp the applied overvoltage voltage and to protect the MOSFET 10. Gscheidle, on the other hand, uses the combination of a surge detection device 1 and a switching device 2 that is opened by the surge detection device 1 upon the detection of an overvoltage. Since Gscheidle does not use a voltage clamp with opposing diodes, there would be no need to provide a large resistance in order to limit the current through the voltage clamp, and consequently no need to bypass the large value of the resistance with a diode in parallel with the large value of the resistance that limits a current through the voltage clamp. Further, the only comparable current limiting resistance, which cooperates with diodes, in the Gscheidle circuit is the resistor R1 that limits the current flowing through the diodes D1, D2 that combine the voltage peaks at the input terminals U_{e1} and U_{e2} . Perhaps Williams might have suggested placing a bypass diode across the resistor R1 of Gscheidle in order to limit the current through the diodes D1 and D2, while also affecting the turn on and turn off times of the transistor T1.

In summary, applicants believe that one of ordinary skill in the art would not modify the Gscheidle circuit in the manner asserted by the Examiner because then the current flowing through the transistor T1 as the MOS transistor T2 is turning off would not be limited, and the transistor T1 could burn up. Applicants also believe that one of ordinary skill in the art would not modify the Gscheidle circuit in the manner asserted by the Examiner because Williams provides the bypass diode due to the large value of the resistance needed to limit the current through one of the branches of the voltage clamp, and the Gscheidle circuit does not use a voltage clamp with diodes that need current limiting.

It is accordingly believed to be clear that none of the references, whether taken alone or in any combination, either show or suggest the features of claim 7. Claim 7 is, therefore, believed to be patentable over the art. The dependent claims are believed to be patentable as well because they all are ultimately dependent on claim 7.

In view of the foregoing, reconsideration and allowance of claims 7-13 are solicited.

In the event the Examiner should still find any of the claims to be unpatentable, counsel would appreciate receiving a telephone call so that, if possible, patentable language can be worked out.

Appl. No. 10/566,529
Amdt. Dated May 27, 2008
Reply to Office Action of April 1, 2008

Please charge any fees that might be due with respect to Sections 1.16 and 1.17 to the Deposit Account of Lerner Greenberg Stermer LLP, No. 12-1099.

Respectfully submitted,

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